

Title (en)

LASER INDUCED BREAKDOWN SPECTROSCOPY FOR THE ANALYSIS OF MOLTEN MATERIAL

Title (de)

LASERINDUZIERTE EMISSIONSSPEKTROSKOPIE FÜR DIE DIREKTANALYSE VON FLÜSSIGSCHMELZEN

Title (fr)

PROCÉDÉ ET APPAREIL D'ANALYSE DE MATIÈRE FONDUE PAR SPECTROSCOPIE À PLASMA INDUIT PAR LASER

Publication

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Application

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Abstract (en)

[origin: US2003234928A1] An apparatus and a method are disclosed for use with Laser Induced Breakdown Spectroscopy (LIBS) systems that can be applied to the real time analysis of molten materials or liquid. Since it is difficult to prepare a surface representative of the bulk when dealing with high temperature molten material, the invention, in one aspect, uses a forced gas flow through a tube insertable inside the molten material to generate a bubble. The inner surface of the bubble is a representative of the composition of the material. LIBS performed on such a surface produces an accurate real time analysis of material, even when other processing of material, e.g., copper smelting, etc., is being conducted.

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IPC 8 full level

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